Amendments to the Claims:

The following listing reflects amendments to the claims and replaces all prior versions and listings of claims in this application.

- 1. (Currently Amended) A process for the preparation of fludarabine phosphate starting from fludarabine, wherein said fludarabine is not anhydrous, comprising the following steps: (a) the reacting fludarabine is eaused to react with a short-chain trialkyl phosphate and phosphorus oxychloride at a temperature of less than -5° C. -5 to -15° C to form a mixture; (b) adding an aprotic non-polar organic solvent is added to the mixture so obtained with consequent precipitation of the fludarabine phosphate.
- 2. (Original) A process according to claim 1, characterized in that the starting fludarabine has a water content, measured in accordance with the Karl Fischer (K.F). method, of not more than 0.5%.
- 3. (Original) A process according to claim 1, characterized in that the short-chain trialkyl phosphate is a compound of the formula (RO)₃PO wherein R is an alkyl radical having from 1 to 4 carbon atoms.
- 4. (Currently Amended) A process according to claim 1, characterized in that the trialkyl phosphate is selected from trimethyl phosphate and triethyl phosphate, preferably triethyl phosphate.
- 5. (Currently Amended) A process according to claim 1, characterized in that the trialkyl phosphate is used in an amount of from 5 to 8 moles, preferably from 6 to 7 moles, per mole of fludarabine.
- 6. (Currently Amended) A process according to claim 5, characterized in that the phosphorus oxychloride is used in an amount of from 1 to 4 moles, preferably from 2 to 3-moles, per mole of fludarabine.
- 7. (Original) A process according to claim 1, characterized in that the aprotic non-polar organic solvent is a hydrocarbon solvent.

- 8. (Original) A process according to claim 7, characterized in that the aprotic non-polar organic solvent is toluene.
- 9. (Currently Amended) A process according to claim 1, characterized in that the aprotic non-polar organic solvent is added at a temperature of less-than—5° C -10 to 15° C.
- 10. (Currently Amended) A process according to claim 1, characterized in that the aprotic non-polar organic solvent is used in an amount of from 50 to 150 moles, preferably in an amount of from 100 to 110 moles, per mole of fludarabine.
- 11. (Currently Amended) A process according to claim 1, characterized in that it is carried out at a temperature of less than -10 °C, preferably at a temperature of from -10 to -15° C.
- 12. (New) A process according to claim 1, characterized in that the trialkyl phosphate is triethyl phosphate.
- 13. (New) A process according to claim 1, characterized in that the trialkyl phosphate is used in an amount of from 6 to 7 moles per mole of fludarabine.
- 14. (New) A process according to claim 5, characterized in that the phosphorus oxychloride is used in an amount of from 2 to 3 moles per mole of fludarabine.
- 15. (New) A process according to claim 1, characterized in that the aprotic non-polar organic solvent is used in an amount of from 100 to 110 moles per mole of fludarabine.